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PATENT DEPARTMENT
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EXAMINER

EXAMINER P

ART UNIT

PAPER NUMBER

3

1207

DATE MAILED: 01/08/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on _____ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892.
2. Notice of Draftsman's Patent Drawing Review, PTO-948.
3. Notice of Art Cited by Applicant, PTO-1449.
4. Notice of Informal Patent Application, PTO-152.
5. Information on How to Effect Drawing Changes, PTO-1474.
6. _____

Part II SUMMARY OF ACTION

1. Claims 1-4 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. Claims _____ have been cancelled.

3. Claims _____ are allowed.

4. Claims 1-4 are rejected.

5. Claims _____ are objected to.

6. Claims _____ are subject to restriction or election requirement.

7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. Formal drawings are required in response to this Office action.

9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).

11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).

12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.

13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. Other

EXAMINER'S ACTION

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15. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the word, "close", within line 9 of claim 1 renders the claims indefinite, because the word is subjective. There is no means of determining quantitatively what constitutes a close temperature.

The use of "may" within line 10 of claim 2 renders the claim indefinite, because it cannot be determined if or to what extent the language denoted by "may" is optional.

"The" ether (poly) isocyanates of claim 3 lack antecedence. Furthermore, the second parenthesis of the first compound is improper. The Markush group is improper, because the species are not referred to in the alternative. It is unclear why "poly" is in parenthesis, since the species are diisocyanates.

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It is unclear how much pressure constitutes the applied pressure referred to within claim 1. Is applied pressure the pressure used for the process?

Lastly, within claim 4, applicants have specified the production of a polyurethane; however, monofunctional or polyfunctional isocyanates are specified. A polyurethane could not be produced from the monofunctional isocyanate.

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly

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owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

17. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Eyck et al. ('833). Patentees disclose bis (2-isocyanatoethyl) ether. The instant isocyanates differ from the disclosed isocyanates in that the instant isocyanates have two pendent methyl groups. As such, they are considered to be homologs and it has been held that substituting methyl groups for hydrogen is prima facie obvious. In re Lohr et al., 137 USPQ 548. Applicants have not provided any showings of unexpected results attributable to the presence of the methyl groups.

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. **Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Lehmann et al. ('122). Patentees disclose the production of polyurethanes by reacting active hydrogen compounds with an ether polyisocyanate. See column 2, lines 12-15. The position is taken that the process of producing the polyurethane is the same, given the instant claim, regardless of how the ether (poly) isocyanate is produced.**

20. **Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehmann et al. ('122) in view of Joulak et al. ('683) or Biskup et al. ('818) or Bischof et al. ('935).**

Lehmann et al. disclose the production of ether isocyanates by reacting phosgene with ether amines. See column 1, lines 42+.

21. **Lehmann et al. are silent regarding conducting the process in the vapor phase; however, the secondary references disclose the phosgenation of diamines in the vapor phase with an attendant increase in yield, as compared to conventional phosgenation processes. Therefore, one of ordinary skill in the art seeking a method of producing ether isocyanates and improving yield would have been motivated to utilize the vapor phase**

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phosgenation methods of the secondary references to produce the ether amines of Lehmann, so as to obtain ether isocyanates displaying greater purity and more economical processes.

A facsimile center has been established in Group 1200, room 3C10. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machine are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication should be directed to Examiner R. Sergent at telephone number (703) 308-2982.

SERGENT; aco
December 30, 1996

Rabon Sergent
RABON SERGENT
PATENT EXAMINER
GROUP 1200